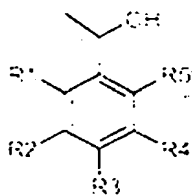


Claims

- [1] 1. A method for preparing a styrenic olefin comprising the steps of:
adding a catalyst and a solvent in a reactor and heating the reactor to create a reflux state;
adding an alcohol starting material dropwise to the reactor at a constant rate;
removing water generated by adding the alcohol starting material from the reactor; and
purifying the obtained styrenic olefin.
- [2] 2. The method of claim 1, wherein the catalyst is at least one selected from the group consisting of acetic acid, haloacetic acid, phosphoric acid, hydrochloric acid, sulfuric acid, an alkylsulfonic acid, an arylsulfonic acid, an alkylarylsulfonic acid, a haloarylsulfonic acid, an alkylhaloarylsulfonic acid, an alkylcarboxylic acid, an arylcarboxylic acid, a haloalkylcarboxylic acid, a haloarylcарboxylic acid and an alkylhaloarylcарboxylic acid having 1-20 carbon atoms.
- [3] 3. The method of claim 1, wherein the catalyst is comprised in 0.1-20 mol% per 100 mol% of the alcohol starting material.
- [4] 4. The method of claim 1, wherein the solvent is at least one selected from the group consisting of an alkane, a cycloalkane, an arene, an alkylarene, a haloalkane, a halocycloalkane, a haloarene and an alkylhaloarene having 1-20 carbon atoms.
- [5] 5. The method of claim 1, wherein the alcohol starting material is a material represented by the following Formula 1:

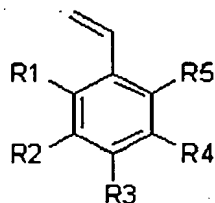


(1)

where each of R1, R2, R3, R4 and R5, which may be identical or different, may be selected from the group consisting of a hydrogen atom, a halogen group, a hydroxy group, a thio group, an amine group, an alkyl group, a cycloalkyl group, a haloalkyl group, an alkylsilyl group, a silylalkyl group, an alkoxy group, a

alkylthio group and an alkylamine group having 1-20 carbon atoms and an aryl group, a haloaryl group, an arylalkyl group, an alkylaryl group, an arylsilyl group, a silylaryl group, an arylalkylsilyl group, an aryloxy group, an arylthio group and an arylamine group having 6-40 carbon atoms.

- [6] 6. The method of claim 1, wherein the alcohol starting material is comprised in 0.05-5 M.
- [7] 7. The method of claim 1, wherein the reaction temperature of the step of creating the reflux state is 50-200 ° C.
- [8] 8. The method of claim 1, wherein the final addition time of the step of adding the alcohol starting material dropwise is 0.1-4 hours.
- [9] 9. The method of claim 1, wherein reaction is performed for 2 hours or less after the alcohol starting material has been added finally.
- [10] 10. The method of claim 1, wherein the water is removed by distilling and/or using a drying agent.
- [11] 11. The method of claim 10, wherein the drying agent is at least one selected from the group consisting of anhydrous magnesium sulfate (MgSO_4), anhydrous calcium sulfate (CaSO_4), anhydrous magnesium chloride (MgCl_2), anhydrous calcium chloride (CaCl_2), alumina (Al_2O_3) and silica gel (SiO_2).
- [12] 12. The method of claim 1, wherein the purification is performed by distilling and/or passing through an alumina or silica gel column.
- [13] 13. The method of claim 12, wherein the distillation is performed by simple distillation and/or vacuum distillation.
- [14] 14. The method of claim 12, wherein the distillation is performed at 25-400 ° C.
- [15] 15. The method of claim 12, wherein the distillation is performed at a degree of vacuum of $0.5 \cdot 10^{-6}$ atm.
- [16] 16. A compound represented by the following Formula 2, which is prepared from any one of claims 1-15:



(2)

where each of R1, R2, R3, R4 and R5, which may be identical or different, may be selected from the group consisting of a hydrogen atom, a halogen group, a hydroxy group, a thio group, an amine group, an alkyl group, a cycloalkyl group, a haloalkyl group, an alkylsilyl group, a silylalkyl group, an alkoxy group, a alkylthio group and an alkylamine group having 1-20 carbon atoms and an aryl group, a haloaryl group, an arylalkyl group, an alkylaryl group, an arylsilyl group, a silylaryl group, an arylalkylsilyl group, an aryloxy group, an arylthio group and an arylamine group having 6-40 carbon atoms.

AMENDED CLAIMS

[received by the International Bureau on 03 March 2005 (03.03.2005);
original claim 16 cancelled; remaining claims unchanged (4 pages)]

1. A method for preparing a styrenic olefin comprising the steps of:

adding a catalyst and a solvent in a reactor and heating the reactor to create a reflux state;

adding an alcohol starting material dropwise to the reactor at a constant rate;

removing water generated by adding the alcohol starting material from the reactor; and

purifying the obtained styrenic olefin.

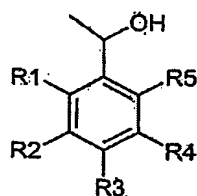
2. The method of claim 1, wherein the catalyst is at least one selected from the group consisting of acetic acid, haloacetic acid, phosphoric acid, hydrochloric acid, sulfuric acid, an alkylsulfonic acid, an arylsulfonic acid, an alkylarylsulfonic acid, a haloarylsulfonic acid, an alkylhaloarylsulfonic acid, an alkylcarboxylic acid, an arylcarboxylic acid, a haloalkylcarboxylic acid, a haloarylcboxylic acid and an alkylhaloarylcboxylic acid having 1-20 carbon atoms.

3. The method of claim 1, wherein the catalyst is comprised in 0.1-20 mol% per 100 mol% of the alcohol

starting material.

4. The method of claim 1, wherein the solvent is at least one selected from the group consisting of an alkane, a cycloalkane, an arene, an alkylarene, a haloalkane, a halocycloalkane, a haloarene and an alkylhaloarene having 1-20 carbon atoms.

5. The method of claim 1, wherein the alcohol starting material is a material represented by the following Formula 1:



(1)

where each of R1, R2, R3, R4 and R5, which may be identical or different, may be selected from the group consisting of a hydrogen atom, a halogen group, a hydroxy group, a thio group, an amine group, an alkyl group, a cycloalkyl group, a haloalkyl group, an alkylsilyl group, a silylalkyl group, an alkoxy group, a alkylthio group and an alkylamine group having 1-20 carbon atoms and an aryl group, a haloaryl group, an arylalkyl group, an alkylaryl group, an arylsilyl group, a silylaryl group, an arylalkylsilyl

group, an aryloxy group, an arylthio group and an arylamine group having 6-40 carbon atoms.

6. The method of claim 1, wherein the alcohol starting material is comprised in 0.05-5 M.

7. The method of claim 1, wherein the reaction temperature of the step of creating the reflux state is 50-200 °C.

8. The method of claim 1, wherein the final addition time of the step of adding the alcohol starting material dropwise is 0.1-4 hours.

9. The method of claim 1, wherein reaction is performed for 2 hours or less after the alcohol starting material has been added finally.

10. The method of claim 1, wherein the water is removed by distilling and/or using a drying agent.

11. The method of claim 10, wherein the drying agent is at least one selected from the group consisting of anhydrous magnesium sulfate (MgSO_4), anhydrous calcium

sulfate (CaSO_4), anhydrous magnesium chloride (MgCl_2), anhydrous calcium chloride (CaCl_2), alumina (Al_2O_3) and silica gel (SiO_2).

12. The method of claim 1, wherein the purification is performed by distilling and/or passing through an alumina or silica gel column.

13. The method of claim 12, wherein the distillation is performed by simple distillation and/or vacuum distillation.

14. The method of claim 12, wherein the distillation is performed at 25-400 °C.

15. The method of claim 12, wherein the distillation is performed at a degree of vacuum of $0.5-10^{-6}$ atm.